IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
Re: Appeal to the Board of Patent Appeals and Interferences

In re Application of:	RICHARD C. GOWEN et al.	Group Art Unit:	2172
Serial No.:	09/825,436	Examiner:	J. Corrielus
Filed:	April 2, 2001	Our Customer ID:	22827
For:	DECISION SUPPORT SYSTEM AND METHOD	Our Account No.:	04-1403
		Attorney Ref.:	SSM-10

Sir:

1. [ ] **NOTICE OF APPEAL**: Pursuant to 37 CFR 41.31, Applicant hereby appeals to the Board of Appeals from the decision dated ____ of the Examiner twice/finally rejecting claims ____.
2. [X] **BRIEF** on appeal in this application pursuant to 37 CFR 41.37 is transmitted herewith (1 copy)
3. [ ] An **ORAL HEARING** is respectfully requested under 37 CFR 41.47 (due within one month after Examiner's Answer).
4. [ ] Reply Brief under 37 CFR 41.41(b) is transmitted herewith (1 copy).
5. [ ] "Small entity" verified statement filed: [ ] herewith [ ] previously.
6. **FEE CALCULATION:**

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ADDRESS:
Post Office Box 1449
Greenville, SC 29602 USA
Customer ID No.: 22827
Telephone: 864-271-1592
Facsimile: 864-233-7342

DORITY & MANNING, ATTORNEYS AT LAW, P.A.

By: RICHARD M. MOOSE Reg. No.: 31,226
Signature: Richard M Moose
Date: January 10, 2005

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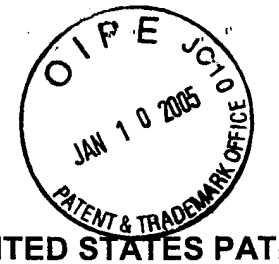

ATTORNEY DOCKET NO.: SSM-10

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF APPEALS AND INTERFERENCES

In re Application of:	Richard C. Gowen et al.	)	Examiner: Jean M. Corrielus
Serial No.:	09/825,436	)	Group Art Unit: 2172
Filed:	April 2, 2001	)	Our Customer ID: 22827
Confirmation No.:	1807	)	Our Account No.: 04-1403
For:	Decision Support System and Method	)	

Ex Parte APPEAL BRIEF Pursuant to 37 CFR § 41.37

Honorable Commissioner for Patents
U.S. Patent and Trademark Office
Post Office Box 1450
Alexandria, VA 22313-1450

Honorable Commissioner:

In response to the Final Rejection communications received from the Examiner and mailed on May 7, 2004 with regard to the above-referenced application, Applicants hereby submit this Appeal Brief (together with Section viii: CLAIMS APPENDIX) in accordance with 37 CFR § 41.37 as well as the requisite fee for the Appeal Brief as set forth in 37 CFR § 41.20(b)(2). Notice of Appeal was filed on November 8, 2004.

i. REAL PARTY IN INTEREST:

The real party in interest with respect to the above-captioned application and to this appeal is an assignee and/or any successor interests thereof, which by assignment recorded on February 10, 2004, at Reel 014981, Frame 0322, is SchlumbergerSema

Telekom GmbH & Co. KG, a corporation duly organized, incorporated and existing under the laws of Germany, having its principal office and place of business at Atrogen Building, Otto-Hahn-Strasse 36, 63303 Dreieich, Germany.

ii. RELATED APPEALS AND INTERFERENCES:

Applicants are not aware of any other appeals or interferences that will directly affect or have bearing on the Board's decision on this appeal.

iii. STATUS OF CLAIMS:

The subject application was filed April 2, 2001 and set forth original claims 1-20, with claims 1, 6, 11 and 16 being in independent form. Claims 1-10 have been withdrawn per a Response to Restriction Requirement filed on February 6, 2004. Present claims 11-20 stand finally rejected, and Applicants are appealing the final rejection of such claims 11-20.

iv. STATUS OF AMENDMENTS:

Applicants filed an Amendment pursuant to 37 C.F.R. §1.111, which was mailed on October 16, 2003. Such paper presented amendments to original claims 11, 16 and 18. It is Applicants' understanding from the USPTO response mailed January 7, 2004 that such amendments were made of record in the subject case.

v. SUMMARY OF CLAIMED SUBJECT MATTER:

A first exemplary embodiment of the present subject matter, as set forth in independent claim 11, relates to a computer readable medium for providing a decision support system. Such a computer-readable medium may correspond to or be incorporated within memory 22, as illustrated in Fig. 2 of the subject application. Software stored in memory 22 may include one or more separate programs, each of which comprises an ordered listing of executable instructions for implementing various logical functions. See pg. 5, lines 18-21 of the original specification. In the exemplary embodiment of claim 11, the computer-readable medium particularly includes logic for acquiring calling card system data, logic for transforming the system data into searchable billing data and customer usage data, and logic for providing queries on the searchable data. Such "logic" may be variously embodied in software, hardware or combinations thereof, specific examples of which will now be described.

When the decision support system 50 is implemented in software and embodied within memory 22, as represented by Fig. 2, it should be noted that the decision support system can be stored on virtually any computer readable medium for use by or in connection with any instruction execution system, apparatus, or device, such as a computer-based system, processor-containing system, or other system that can fetch the instructions from the instruction execution system, apparatus, or device and execute the instructions. The computer readable medium can be, for example but not limited to, an electronic, magnetic, optical, electromagnetic, infrared, or semiconductor system, apparatus, device or propagation medium. More specific examples (a nonexhaustive list) of the computer-readable medium would include the following: an electrical

connection having one or more wires, a portable computer diskette, a random access memory (RAM), a read-only memory (ROM), an erasable programmable read-only memory (EPROM, EEPROM, or Flash memory), an optical fiber, and a portable compact disc read-only memory (CDROM). The computer-readable medium could even be paper or another suitable medium upon which a program is printed, as the program can be electronically captured, via for instance optical scanning of the paper or other medium, then compiled, interpreted or otherwise processed in a suitable manner if necessary, and then stored in a computer memory.

In alternative embodiments, where the decision support system 50 is implemented in hardware, the decision support system 50 can be implemented with any one or a combination of the following technologies: a discrete logic circuit(s) having logic gates for implementing logic functions upon data signals, an application specific integrated circuit (ASIC) having appropriate combinational logic gates, a programmable gate array(s) (PGA), a field programmable gate array (FPGA), etc. See pg 7, line 12 – pg. 8, line 21 of the original specification.

The various embodiments of computer readable medium set forth in dependent claims 12-15 include further "logic" for performing additional steps. Such logic, similar to the logic in independent claim 11, may be embodied in software, hardware or combinations thereof as described above.

Another exemplary embodiment of the present subject matter, as set forth in independent claim 16, corresponds to a system for providing a decision support system, particularly including such elements as an input mechanism, a transformation mechanism, and a reporter. As illustrated in Figs. 2 and 3, such mechanisms that are

part of the combination to form a decision support system in accordance with the present technology may be embodied within memory 22. Decision support system 50 may be implemented in software (e.g., firmware), hardware, or a combination thereof. See pg. 4, lines 4-14 of the original specification.

One recited element of the system for providing a decision support system set forth in claim 16 is an input mechanism that acquires calling card system data. Such input mechanism at least partially corresponds in some embodiments to the data extraction module 51 illustrated in Figs. 2 and 3. Data extraction component 51 extracts data from a target database and transfers it to the staging area 52 in the decision support system 50. See lines 4-6 on page 9 of the original specification. As set forth in dependent claims 17, 18, and 20, respectively, the input mechanism is also configured to load searchable data into a billing data mart, load searchable data into a usage data mart, and refresh the billing data mart and usage data mart. In accordance with such capabilities of the input mechanism, it should be appreciated that such input mechanism also comprises a portion of the transformation and load module 53 illustrated in Figs. 2 and 3. More particularly, the "load" functionality of transformation and load module 53 provides the ability to transfer and load optionally structured data into the data marts. See pg. 9, lines 6-9 of the original specification. Furthermore, as set forth in dependent claim 20 and also on pg. 11, lines 7-8 of the original specification, the decision support system (namely, the input mechanism thereof) refreshes the data marts as necessary.

Another element set forth in independent claim 16 of the subject application relates to a transformation mechanism that transforms the calling card system data into searchable billing-related and customer usage data. Such transformation mechanism

may be embodied by at least part of the data transformation and load module 53 illustrated in Figs. 2 and 3. As set forth on numbered page 10, lines 3-12 of the original specification, the data marts into which the calling card system data is stored after transformation into a searchable form utilize and store all of the information available for research. Unlike data warehouses, data marts are focused on particular topics, e.g., in this disclosure, billing related information for a calling card plan. Since the data marts contain only specific subsets of production database, they are smaller and easier to manage. Data can then be structured in a way that suits the needs of the analyzing user, which then simplifies research and dramatically reduces response times. The data marts utilized by decision support system 50 are based on the star schemer that basically involves a very large fact table that is surrounded by dimensional tables. Such fact tables contain data to be analyzed, while the dimensional tables provide the selected criteria.

A third element set forth in the embodiment of independent claim 16 corresponds to a reporter that provides queries on the searchable data, which may be at least partially embodied by the online queries and reports module 56 illustrated in Figs. 2 and 3. Queries can be performed to study record amounts by various customer attributes, for example but not limited to, activation/deactivation data, customer gender, price group, geographic region, credit rating, etc. Using the data mart, one can usually generate usage-related queries to assist the customer in work analysis to evaluate product success and determined network load. It is also possible to evaluate geographic usage load by performing a query that maps the total call volume by

geographic region and call/date or time. See pg. 9, line 13 through pg. 10, line 2 of the original specification.

It should be appreciated that each of the modules described above with respect to claims 16-20, including data extraction module 51, data transformation and load module 53, billing data mart 55, usage data mart 54, and online queries and reports module 56, and other elements that combine to form a decision support system in accordance with the present technology may be embodied within memory 22. Decision support system 50 may be implemented in software (e.g., firmware), hardware, or a combination thereof, as previously described.

vi. **GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL:**

I. Is claim 11 patentable under 35 U.S.C. §112, second paragraph, because there is sufficient antecedent basis for limitations in the claim?

II. Are claims 11-20 patentable under 35 U.S.C. §102(e) over U.S. Patent No. 6,535,593 (Cashiola)?

III. Are claims 11-20 patentable under 35 U.S.C. §103(a) over U.S. Patent No. 6,345,239 (Bowman-Amuah) in view of U.S. Patent No. 6,535,593 (Cashiola)?

vii. **ARGUMENT:**

I. The invention set forth in claim 11 particularly sets forth and distinctly claims the subject matter which Applicants regard as the invention.

Independent claim 11, respectfully, includes only limitations having proper antecedent basis. Previous claim language made reference to such specific and clear terms as "system data" and "searchable data" but the Examiner requested that such claim language be amended, ostensibly to more particularly set forth such respective terms as "calling card system data" and "billing data and customer usage data" in lieu of previous claim language. Such request was presented in the context of a rejection under 35 U.S.C. §112, second paragraph.

It is respectfully submitted that the terms "the system data" as recited in the second paragraph of the body of claim 11 uniquely refer to "calling card system data" as stated in the first paragraph of the body of claim 11, wherefore there is no antecedent basis issue for such aspect of claim 11. Likewise, the terms "searchable data" as recited in the third paragraph of the body of claim 11 uniquely refer to "searchable billing data and customer usage data" as recited in the second paragraph of the body of claim 11, wherefore there is no antecedent basis issue for such aspect of claim 11.

Accordingly, claim 11, with the present term language of "system data" and "searchable data," fully complies with all requirements of 35 U.S.C. §112, second paragraph, and such rejection grounds of the Final Rejection should respectfully be reversed.

In the alternative, should at the conclusion of its decision on this appeal, the Board find for Applicants on all issues except this ground of rejection of just several claim terms under 35 U.S.C. §112, second paragraph, then Applicants request that the Board propose amendments, pursuant to 37 CFR § 41.50(c), for independent claim 11 so that as amended, such claim would include only limitations having proper antecedent basis. Applicants respectfully would then be able to request entry of such claim amendments, pursuant to 37 CFR § 41.50(c), and to receive confirmation that such amended claim 11 complies with 35 U.S.C. §112, second paragraph.

II. Claims 11-20 are not anticipated under 35 U.S.C. §102(e) by Cashiola (U.S. Patent No. 6,535,593).

Before setting forth a discussion of the prior art patent applied in the subject Final Office Action, it is respectfully submitted that controlling case law has frequently addressed rejections under Section 102.

"For a prior art reference to anticipate in terms of 35 U.S.C Section 102, every element of the claimed invention must be identically shown in a single reference." Diversitech Corp. v. Century Steps, Inc., 850 F.2d 675, 677, 7 U.S.P.Q.2d 1315, 1317 (Fed Cir, 1988; emphasis added). The disclosed elements must be arranged as in the claim under review. See Lindemann Machinefabrik v. American Hoist & Derrick Co., 730 F.2d 1452, 1458, 221 U.S.P.Q. 481, 485 (Fed. Cir. 1984). If any claim, element, or step is absent from the reference that is being relied upon, there is no anticipation. Kloster Speedsteel AB v. Crucible, Inc., 793 F.2d 1565, 230 U.S.P.Q. 81 (Fed. Cir. 1986). Anticipation under 35 U.S.C. Section 102 requires that there be an identity of invention. See Shatterproof Glass Corp. v. Libbey-Owens Ford Co., 758 F.2d 613, ___,

225 U.S.P.Q. 635, 637 (Fed. Cir. 1985). In PTO proceedings, claim language should be read in light of the specification as it would be interpreted by one of ordinary skill in the art. In re Sneed, 710 F.2d 1544, 1548, 218 U.S.P.Q. 385, 388 (Fed. Cir. 1983).

Independent claims 11 and 16 both address aspects of a decision support system. Claim 11 is directed to a computer readable medium for providing a decision support system. Such computer-readable medium includes such elements as logic for acquiring calling card system data, logic for transforming the calling card system data into searchable billing data and customer usage data, and logic for providing queries on the searchable data. Claim 16 is directed to a decision support system including such elements as an input mechanism that acquires calling card system data, a transformation mechanism that transforms the calling card system data into searchable billing-related and customer usage data, and a reporter that provides queries on the searchable data. Applicants respectfully submit that Cashiola fails to disclose all elements of present claims 11 and 16 as alleged by the May 7, 2004 Office Action, in particular the features which variously involve acquiring calling card system data and transforming calling card system data into searchable billing data and customer usage data.

The May 7, 2004 Office Action alleges on numbered page 3 that "as to claim 11, Cashiola discloses the claimed 'logic for acquiring calling card system data' ... (col. 6, lines 19-30)." Applicants respectfully note and urge several distinctions between the acquisition of calling card data in accordance with embodiments of the present subject matter and the data collection disclosed in Cashiola.

In accordance with embodiments of the present subject matter, calling card system data is acquired by a data extraction component that extracts data from a target database and transfers it to a staging area. As such, the acquisition of calling card data corresponds to importing pre-existing data from a database. In contrast, col. 6, lines 9-30 of Cashiola refers to data entry by a user via the user interface embodied by screen shot 250 of Fig. 2B to engage in batch processing of pre-paid calling card/PIN services. Such user interface enables one to activate whole batches of calling cards and also to effect batch maintenance of such cards. Based on the limited disclosure of Cashiola, it is clear that such specific form of data acquisition is not done by importing pre-existing data from a target database, but by requesting manual user input.

Applicants further note that the type of calling card system data set forth in present claims 11 and 16 is much different than the type of information referenced in Cashiola. Claims 11 and 16 respectively set forth that the acquired calling card system data is then transformed into searchable billing data and customer usage data. As mentioned above, the alleged calling card data solicited for manual entry in Cashiola is concerned with data for effecting the batch processing or activation of calling cards. Information used for batch activation of calling cards is quite limited compared to the type of data that relays information corresponding to billing data and customer usage data. Therefore, the user interface for effecting manual batch activation of calling cards cannot be the same as the "logic for acquiring calling card system data" as set forth in present claim 11 or the "input mechanism that acquires calling card data" as set forth in claim 16 because the batch activation data provided via a user interface in Cashiola is not capable of then being transformed into billing data and customer usage data.

The second recited aspects of respective claims 11 and 16 are directed to features that transform "calling card system data into searchable billing data and customer usage data". Numbered page 3 of the May 7, 2004 Office Action states that col. 6, lines 57-63 of Cashiola discloses the equivalent of such element. Applicants respectfully disagree with such unsupported assertion. Col. 6, lines 57-63 of Cashiola concern the display of selected data in a screen shot 260, which essentially corresponds to providing an electronic billing notice. The general display of billing information is not equivalent to, nor anticipatory of, transforming acquired calling card data into searchable billing and customer usage data, and thus Cashiola does not disclose such elements of respective independent claims 11 and 16.

The features for acquiring calling card system data and for transforming the calling card system data into searchable billing data and customer usage data as set forth in present claims 11 and 16 are important aspects of such claims. Additional limitations of such aspects are set forth in dependent claims 12-15 and 17-20, respectively. More particularly, the searchable billing data and customer usage data are selectively loaded into billing data marts and/or usage data marts, which may be refreshed in some embodiments, and for which summary tables are created in other embodiments. The use of data marts for housing the searchable billing and customer usage data is another limitation that is not disclosed in Cashiola. Cashiola discloses only general aspects of the collection of consolidated billing data, not the specific transformation of calling card system data into searchable data and loading of such data into "data marts."

By loading the searchable (i.e., transformed) data associated with the decision support system into data marts, information available for research is advantageously with the present subject matter focused on particular topics. Since the data marts contain only specific subsets of a production database, they are generally smaller and easier to manage. Data can then be structured in a way that suits the needs of the analyzing user, which then simplifies research and dramatically reduces response times. Since Cashiola does not disclose the loading of information into "data marts," such advantages cannot be realized.

Based on the above remarks, Applicants respectfully submit that Cashiola fails to disclose all elements of claims 11-20, respectively. As such, claims 11-20 are not anticipated by such reference, and they patentably define over Cashiola in the context of 35 U.S.C. Section 102.

III. Claims 11-20 are not patentable under 35 U.S.C. §103(a) over Bowman-Amuah (U.S. Patent No. 6,345,239) in view of Cashiola (U.S. Patent No. 6,535,593).

Before setting forth a discussion of the referenced applied prior art patents, it is respectfully submitted that controlling case law has frequently addressed rejections under Section 103. In addition to the well-known required multi-step analysis of Graham v. John Deere Co., 381 U.S. 1, 148 U.S.P.Q. 459 (S. Ct. 1966), and its progeny, the Court of Appeals for the Federal Circuit has on numerous occasions offered its guidance concerning the propriety of Section 103 rejections.

> Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. Under section 103, teachings of references can be combined only if there is some suggestion or incentive to do so1. (emphasis original)

The task of the Patent Office is essentially a burden of proof not just to show prior patents with selected elements similar to respective parts of a claimed combination, but to show teachings to support obviously combining the elements in the manner claimed.

> Virtually all inventions are necessarily combinations of old elements. The notion, therefore, that combination claims can be declared invalid merely upon finding similar elements in separate prior patents would necessarily destroy virtually all patents and cannot be the law under the statute, ' 103.2 (footnotes omitted)

In In re Deminski, 230 U.S.P.Q. 313 (Fed. Cir. 1986), the court reversed a Patent Office Board of Appeals decision rejecting claims for obviousness, saying: "There [was] nothing in the prior art references, singly or in combination, 'to suggest the desirability, and thus the obviousness' of the [claimed subject matter]." Id. at 315; emphasis original. The court noted that the relied-on reference did not address the technical problem addressed by the claimed invention (and in fact taught away from the Applicant's invention), and stated the well-established principle that "[h]indsight analysis is clearly improper. . . ." Id. at 316.

In Bausch & Lomb v. Barnes-Hind/Hydrocurve, 230 U.S.P.Q. 416 (Fed. Cir. 1986), the court vacated a district court holding of invalidity for obviousness. In doing so, the district court was criticized for viewing teachings from the prior art in isolation,

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1 ACS Hospital Systems, Inc. v. Montefiore Hospital, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984).

instead of considering the prior art references in their entirety; for entering the tempting but forbidden zone of hindsight analysis; for failing to view the claimed invention as a whole; and for disregarding express claim limitations. Id. at 419, 420.

> It is impermissible within the framework of section 103 to pick and choose from any one reference only so much of it as will support a given position to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one skilled in the art3. (emphasis added)
>
> The Supreme Court in Graham and Adams . . . foreclosed the use of substitutes for facts in determining obviousness under section 103. The legal conclusion of obviousness must be supported by facts. [footnote omitted] Where the legal conclusion is not supported by facts, it cannot stand. . . .
>
> A rejection based on section 103 clearly must rest on a factual basis, and these facts must be interpreted without hindsight reconstruction of the invention from the prior art. . . . It [the Patent Office] may not, because it may doubt that the invention is patentable, resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in its factual basis. . . .
>
> [W]e may not resolve doubts in favor of the Patent Office determination when there are deficiencies in the record as to the necessary factual bases supporting its legal conclusion of obviousness4. (emphasis original)

Finally, the PTO Board of Appeals noted the following in Ex parte Clapp: "[S]implicity and hindsight are not proper criteria for resolving the issue of obviousness.5"

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2 Panduit Corp. v. Dennison Manufacturing Co., 1 U.S.P.Q. 2d 1593, 1603 (Fed. Cir. 1987).
3 Bausch & Lomb v. Barnes-Hind/Hydrocurve, 230 U.S.P.Q. 416, 419 (Fed. Cir. 1986).
4 In re Warner, 379 F.2d 1011, __, 154 U.S.P.Q. 173, 177, 178 (C.C.P.A. 1967).

5 Ex parte Clapp, 227 U.S.P.Q. 972, 973 (PTO Bd. App. 1985).

The following analysis of the present rejection is respectfully offered with guidance from the foregoing controlling case law decisions.

In view of the significant distinctions discussed above, Applicants respectfully traverse the listed grounds of rejection. By relying on rejection grounds under 35 U.S.C. §103(a) for alleged obviousness, and by various statements throughout the detailed Office Action, the PTO already acknowledges certain important deficiencies of the Bowman-Amuah reference which renders such reference inadequate for serving by itself (without some external motivation or suggestion of modification) as a rejection basis for claims 11-20.

Numbered page 4 of the May 7, 2004 Office Action alleges that Bowman-Amuah discloses the features set forth in independent claims 11 and 16 regarding "transforming the system data into searchable billing data and customer data" (col. 26, lines 7-25). Applicants respectfully disagree with such assertion. Col. 26, lines 7-25 of Bowman-Amuah concern the combination of call records created at switches within a telecommunications network. The general collection of call records into a billing block does not anticipate nor provide an equivalent to transforming acquired calling card data into searchable billing and customer usage data, and thus Bowman-Amuah does not disclose such claimed aspects of respective independent claims 11 and 16.

The subject Final Office Action already acknowledges that Bowman-Amuah fails to disclose the use of a calling card system, and asserts that an alleged obvious combination with Cashiola overcomes such deficiences. As submitted above in Section II of these Arguments, Cashiola also fails to disclose the subject features for acquiring calling card system data and transforming that data into searchable billing data and

customer usage data. As such, Bowman-Amuah and Cashiola, whether taken singly or in any proposed combination thereof, fail to disclose all elements of respective independent claims 11 and 16, wherefore such claims as a matter of law, are not obvious under 35 U.S.C. §103(a) over such references. Furthermore, since claims 12-15 and 17-20 variously depend from otherwise patentable claims 11 and 16 and further limit same, all claims 11-20 are patentable over such references.

Applicants further submit that the disclosure of Bowman-Amuah teaches away from utilizing certain aspects of the present subject matter, namely the loading of searchable data into data marts. Applicants note with respect to Bowman-Amuah that such reference makes only general reference to "search[ing] each billing block and retriev[ing] the call record associated with the call" (see col. 26, lines 17-20). Such general reference to searching for call records is much different than the type of searching effected in accordance with aspects of the present subject matter. In accordance with the present subject matter, searchable (i.e., transformed) data associated with the decision support system is loaded into data marts, such that the information available for research is advantageously focused on particular topics. Since the data marts contain only specific subsets of a production database, they are generally smaller and easier to manage. Data can then be structured in a way that suits the needs of the analyzing user, which then simplifies research and dramatically reduces response times.

The utilization of transformed searchable data, especially into the aforementioned data marts, yields significant advantages over conventional SQL-type generic query language. As outlined in the Background of the Invention section of the

subject application, SQL has drawbacks in that the user must be a fairly competent programmer in order to utilize the language since it can be highly technical for some searches. Furthermore, because of the technical nature of SQL, most databases require a database administrator to collect and categorize the information collected. Also, because SQL is a generic query language system, the data is not focused on particular topics.

Bowman-Amuah teaches the use of data mining techniques whereby methods of the Bowman-Amuah subject matter use decision trees that are easily converted into SQL statements used for accessing databases. In contrast, the decision support system of the subject application, such as embodied by claims 11-20, is directed to features that provide advantages over conventional SQL decision and search methods. Such advantages are realized in part by loading searchable data into data marts. Since Bowman-Amuah discloses a preference for compatibility with SQL statements, such reference teaches away from potential modifications to utilize data transformation and loading into data marts.

Based on the above remarks, Applicants respectfully submit that claims 11-20 are patentable over the combination of Bowman-Amuah and Cashiola references.

CONCLUSION :

In view of the foregoing, Applicants respectfully submit that present claims 11 through 20 clearly and patentably define over the applied Cashiola and Bowman-Amuah references, within the meaning of 35 U.S.C. Sections 102, 103 and 112, wherefore reversal of the grounds of rejection stated in the subject May 7, 2004 Final Rejection, is requested.

Respectfully submitted,

DORITY & MANNING,
ATTORNEYS AT LAW, P.A.

Janurary 10, 2005
Date

Richard M. Moose
Registration No. 31,226
Customer ID No.: 22827

Telephone: (864) 271-1592
Facsimile: (864) 233-7342

viii. CLAIMS APPENDIX

In accordance with 37 C.F.R. §1.121, the claim listing below includes the status and text of all claims.

1-10. (Withdrawn)

11. (Previously Presented) A computer readable medium for providing a decision support system, comprising:

logic for acquiring calling card system data;

logic for transforming the system data into searchable billing data and customer usage data; and

logic for providing queries on the searchable data.

12. (Original) The computer readable medium of claim 11, further comprising:

logic for loading searchable data into a billing data mart.

13. (Original) The computer readable medium of claim 12, further comprising:

logic for loading searching data into a usage data mart.

14. (Original) The computer readable medium of claim 13, further comprising:

logic for creating summary tables of the billing data mart and usage data mart.

15. (Original) The computer readable medium of claim 14, further comprising:

logic for refreshing the billing data mart and usage data mart.

16. (Previously Presented) A system for providing a decision support system, comprising:

an input mechanism that acquires calling card system data;

a transformation mechanism that transforms the calling card system data into searchable billing–related and customer usage data; and

a reporter that provides queries on the searchable data.

17. (Original) The system of claim 16, wherein the input mechanism loads the searchable data into a billing data mart.

18. (Previously Presented) The system of claim 17, wherein the input mechanism loads the searchable data into a usage data mart.

19. (Original) The system of claim 18, further comprising:

a summary mechanism that creates a plurality of summary tables for the billing data mart and usage data mart.

20. (Original) The system of claim 19, wherein the input mechanism refreshes the billing data mart and usage data mart.

ix. EVIDENCE APPENDIX

Not Applicable

x. RELATED PROCEEDINGS APPENDIX

Not Applicable